

acid sequence shown in SEQ ID NO:3, and the amino acid sequence of said ligand-binding domain exhibits at least 70% homology with the amino acid sequence shown in SEQ ID NO:4, and wherein said DNA-binding domain targets the receptor protein to a selected hormone responsive element of a target gene and said ligand-binding domain recognizes and binds to an estrogen, thereby modulating expression of said target gene.

J1
J2
2. (Twice amended) The isolated DNA according to claim 1, wherein the amino acid sequence of said DNA-binding domain exhibits at least 90% homology with the amino acid sequence shown in SEQ ID NO:3.

3. (Twice amended) The isolated DNA according to claim 1, wherein the amino acid sequence of said ligand-binding domain exhibits at least 75% homology with the amino acid sequence shown in SEQ ID NO:4.

J2
8. (Amended three times) The cell according to claim 7, which is a stable transfected cell line that expresses a human estrogen receptor protein.

J3
12. (Amended four times) A DNA that encodes a chimeric receptor protein, which protein has an N-terminal domain, a DNA-binding domain, and a ligand-binding domain, wherein at least one of said domains of said chimeric protein originates from a protein comprising an amino acid sequence selected from the group

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consisting of SEQ ID NO:5, SEQ ID NO:6, SEQ ID NO:21 and SEQ ID NO:25, and at least one of the other domains of said chimeric protein originates from a protein from the nuclear receptor superfamily, provided that the DNA-binding domain and the ligand-binding domain of said chimeric protein originate from different proteins, and wherein said DNA-binding domain targets the receptor protein to a selected hormone responsive element of a target gene and said ligand-binding domain recognizes and binds to a selected steroid, thereby modulating expression of said target gene.

Please also add the following new claims 20-26:

20. The isolated DNA according to claim 1, wherein the amino acid sequence of said DNA-binding domain exhibits at least 90% homology with the amino acid sequence shown in SEQ ID NO:3, and wherein the amino acid sequence of said ligand-binding domain exhibits at least 75% homology with the amino acid sequence shown in SEQ ID NO:4. --

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-- 21. The isolated DNA according to claim 20, wherein the amino acid sequence of said DNA-binding domain exhibits at least 95% homology with the amino acid sequence shown in SEQ ID NO:3 and wherein the amino acid sequence of said ligand-binding domain exhibits at least 80% homology with the amino acid sequence shown in SEQ ID NO:4. --

-- 22. The isolated DNA according to claim 21, wherein the amino acid sequence of said DNA-binding domain exhibits at least 97% homology with the amino acid sequence shown in SEQ ID NO:3, and wherein the amino acid sequence of said ligand-binding domain exhibits at least 90% homology with the amino acid sequence shown in SEQ ID NO:4. --

-- 23. The isolated DNA according to claim 20, wherein the amino acid sequence of said DNA-binding domain exhibits at least 95% homology with the amino acid sequence shown in SEQ ID NO:3. --

-- 24. The isolated DNA according to claim 23, wherein the amino acid sequence of said DNA-binding domain exhibits at least 98% homology with the amino acid sequence shown in SEQ ID NO:3. --

*J4
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-- 25. The isolated DNA according to claim 20, wherein the amino acid sequence of said ligand-binding domain exhibits at least 80% homology with the amino acid sequence shown in SEQ ID NO:4. --

-- 26. The isolated DNA according to claim 25, wherein the amino acid sequence of said ligand-binding domain exhibits at least 90% homology with the amino acid sequence shown in SEQ ID NO:4. --